

Clinical evaluation of 30 cases for obturator hernia

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Summary : Thirty cases with CT diagnosed obturator hernia were retrospectively investigated to clarify the significance. The mean age was 83 years. There were 29 women and one man. The mean BMI (body mass index) was 16 kg/m² (normal: 18.5-25). The number of deliveries was mean 2.2 (range: 0-6). Intestinal obstruction was radiologically confirmed in 24 cases. Emergent surgery was performed in 27 cases. Inguinal approach was 26 cases. All inguinal approach was repaired by patch repair. Strangulated bowel was observed in 22 cases, 6 of whom were received partial resection for perforated bowel. Patch repair via inguinal approach is definitely valuable and minimally invasive surgery in selecting patients with obturator hernia.

Key words : Obturator hernia, Hernia repair, Intestinal obstruction

Introduction

Obturator hernia is an emergent and rare disease, and was reported to account for 0.05-0.14% of all groin hernias^{1,2)}. Obturator hernia is a significant cause of intestinal obstruction due to the associated anatomy.

Materials and Methods

During the period July 2000-July 2014, 30 cases with CT diagnosed obturator hernia entered this study to clarify the significance. The mean age was 83 years in our series. There were 29 women and only one man. Hernia site were 16 left, 12 right and 2 bilateral groin.

Result

The frequency of complaints were 20

abdominal pain, 17 nausea/vomiting and 10 femoral pain. The mean BMI (body mass index) was 16 kg/m² (normal: 18.5-25). The number of deliveries was mean 2.2 (range: 0-6). The relevant past history were 2 lung disease and 6 kyphoscoliosis. Seven cases had a history of previous attacks and subsequent remission. Their interval of attack was average 21 months (median: 11). Standard laboratory test showed that average WBC was 7,300/ul (median: 7,300) and CRP was 2.7mg/dl (median: 0.5). Intestinal obstruction was radiologically confirmed in 24 cases, 15 of whom had no history of laparotomy. Emergent surgery was performed in 27 cases. General anesthesia was 24 cases. Inguinal approach was 26 cases. All inguinal approach was repaired by patch repair

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(PHS: PROLENE. Hernia System). Strangulated bowel was observed in 22 cases, 6 of whom were received partial resection for perforated bowel. In selecting cases of bowel resection (n=6), a patch repair (n=4) was performed without postoperative complications. Postoperative complications included wound infection (n=1) and pneumonia (n=1). No recurrence had been detected with the mean follow-up of 17 months (median 7). Strangulated bowel was not observed operatively in 9 cases, one of whom was confirmed bowel perforation later (case presentation).

Case presentation: A 77-year-old woman had appetite loss, nausea and abdominal distension for 10 days. Examination revealed only slight abdominal pain. Standard laboratory test showed no abnormality, apart from WBC: 1,138/ul and CRP: 1.0mg/dl. CT scanning detected obturator hernia with intestinal obstruction. She had relevant past history of femoral pain 4 years

ago and appetite loss 3 months ago. Emergent surgery was performed via inguinal approach and revealed obturator hernia. But transient herniation had been already resolved during operative manipulation. Then, we confirmed serous ascites and normal bowel around hernia orifice, and repaired using patch. Second look operation was done due to sudden abdominal pain at 3 POD.

Laparotomy via lower median approach disclosed purulent ascites, peritonitis and rupture of strangulated bowel. Perforation was located at 30cm small bowel from terminal ileum (Fig. 1).

Discussion

Howship-Romberg sign is generally present in 25-50% of patients^{1,2)}. The sign demonstrated just 4 cases out of 5 in our series. The sign is not available lately because of early diagnosis by CT scanning. Clinical factors failed to reveal the severity of bowel obstruction or the indication for bowel resection in our series. Abdominal approach would be good indication for contaminated or infected cases which highly suspected perforation. Incidental obturator hernia should be repaired, because of frequent strangulation. One case received asynchronous surgeries for inguinal hernia, femoral hernia, and obturator hernia, respectively. Initial operation is important, and patch repair (PHS: PROLENE. Hernia System) can fully cover these areas at once. One case had surgery synchronously combining appendectomy. Pathological diagnosis was gangrenous appendicitis with peritonitis, which suggested strangulation of appendix by obturator hernia.

Reflection point: Strict operative investigation is necessary to check the severity of bowel obstruction, in case transient herniation resolved spontaneously.

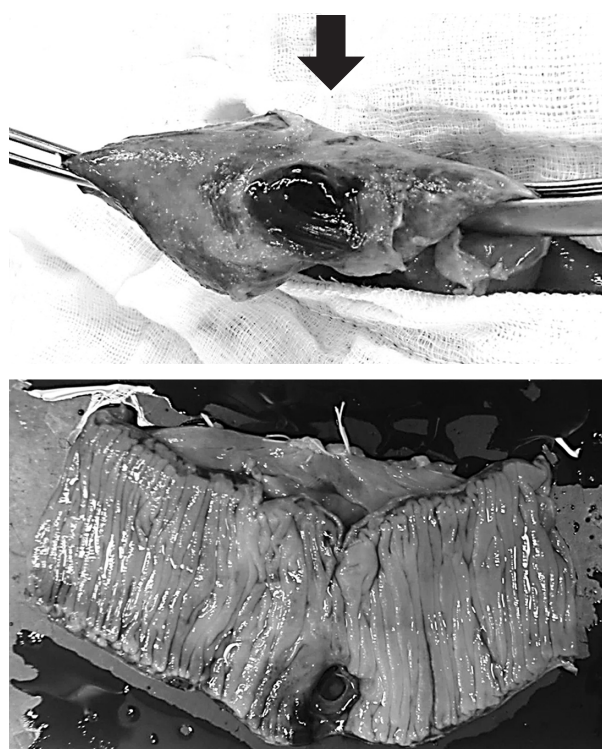


Figure 1: Perforated small intestine (above) and resected specimen (below). Arrow indicates perforation.

Conclusion

Thirty cases of obturator hernia were managed in our hospital during 14-year period. Obturator hernia occurs most commonly in elderly slender and multipregnant women. CT scanning can clearly demonstrate obturator hernia, although the physical findings are nonspecific. Early surgical intervention is the only effective treatment, because of frequent strangulations and poor reposition.

Patch repair via inguinal approach is definitely valuable and minimally invasive surgery in selecting patients with obturator

hernia.

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